

Patent Claims:

1. A system for the automatic generation of printable files from data in a database (30), said system comprising a printing system (10) consisting of at least one print processing component (14), whereby the print processing component (14) has means for printing and/or further processing the printable files, characterized by the following features:
 - the printing system has at least one print job generation element (15),
 - the print job generation element (15) can be connected to a server (20) via a first interface (50),
 - the server (20) can be connected to a database (30) via a second interface (40),
 - the print job generation element (15) has means for requesting and receiving data from the database (30), and
 - the print job generation element (15) has means for preparing the data from the database (30) as a function of the requirements of the print processing component (14) and it also has means for generating printable files.
2. The system according to Claim 1 characterized in that the database (30) is located outside of the area of the printing system (10).
3. The system according to one or both of Claims 1 and 2, characterized in that the print job generation element is a program on at least one computer of the printing system (10).
4. The system according to one or more of the preceding claims, characterized in that the first interface (50) is a SOAP (Simple Object Access Protocol) interface, while the server (20) is a SOAP server (20).

5. The system according to one or more of the preceding claims, characterized in that the SOAP interface uses HTTP/HTTPS as the data transmission protocol.
6. The system according to one or more of the preceding claims, characterized in that the print job generation element (15) can be connected to the server (20) temporarily and/or permanently via the Internet (60).
7. The system according to one or more of the preceding claims, characterized in that the second interface (40) is a PL/SQL (Procedural Language/Structured Query Language) layer.
8. A method for the automatic generation of printable files from data in a database (30), by means of which the files are generated, printed out and/or further processed by a printing system (10) consisting of at least one print processing component (14) and one print job generation element (15), characterized by the following steps:
 - the print job generation element (15) generates a first message (16) that contains a call to a server (20) for a specific method with parameters,
 - the print job generation element (15) establishes a connection to the server (20) via a first interface (40),
 - the print job generation element (15) transmits the first message (16) to the server (20) via the first interface (40),
 - the server (20) processes the first message (16) in that it calls the specific method with the appertaining parameters,
 - the server (20) establishes a connection to the database (30) via a second interface (50),

- the server (20) retrieves data from the database (30) via the second interface (50),
 - the server sends the result of the call for the specific method in the form of a second message (17) back to the print job generation element (15) and
 - the print job generation element (15) generates at least one printable file from the result of the call for the specific method.
9. The method according to Claim 8, characterized in that the communication between the print job generation element (15) and the server (20) takes place via a SOAP interface.
 10. The method according to Claim 9, characterized in that the communication takes place via an Apache SOAP API.
 11. The method according to one or more Claims 8 to 10, characterized in that the communication between the server (20) and the database (30) takes place via a PL/SQL (Procedural Language/Structured Query Language) layer.
 12. The method according to one or more of Claims 8 to 11, characterized by the following steps:
 - the print job generation element (15) generates a first message (16) by calling an instance of a call class (18) of an Apache SOAP API and sets properties of this object,
 - the print job generation element (15) transmits the first message (16) to the server (20),
 - on the part of the server (20), a web server (21) accepts the first message (16) with the call and evaluates it,

- the sent URL is associated with the Apache SOAP API's RPC router-servlet where the server-SOAP object is known
 - the call is transmitted to this servlet,
 - the RPC router-servlet analyzes the first SOAP message (16), determines the class to be called and instantiates it,
 - the desired method with the transmitted parameters is called,
 - the return value is converted into a second SOAP message (17) and this is returned as a response via HTTP,
 - the instance of the call class (18) on the client side analyzes the second message (17) and returns the obtained result to the print job generation element (15).
13. The method according to one or more of Claims 8 to 12, characterized in that the print job generation element (15) checks at the start whether any updates are available on the server (20) and it updates its configuration automatically if an update is available.
14. The method according to Claim 13, characterized in that a new processing file is transmitted during the updating procedure.